

What is claimed is:

1. A rotation angle detector comprising:

a rotor;

first and second detecting elements which rotate according to a  
5 rotation of said rotor;

first and second detecting units for detecting rotations of said first  
and second detecting elements, respectively; and

a control unit for detecting a rotation angle of said rotor based on  
a first signal when a difference between said first and second signals output  
10 from said first and second detecting units ranges within a predetermined  
range.

2. The rotation angle detector of claim 1, further comprising:

a third detecting element which rotates according to the rotation  
15 of said rotor; and

a third detecting unit for detecting a rotation of said third  
detecting element,

wherein said control unit detects said rotation angle of said rotor  
based on said first signal and a third signal output from said third detecting  
20 unit.

3. The rotation angle detector of claim 1, further comprising:

a third detecting element which moves according to the rotation of  
said rotor; and

25 a third detecting unit for detecting a movement of said third  
detecting element,

wherein said control unit detects said rotation angle of said rotor

based on said first signal and a third signal output from said third detecting unit.

4. The rotation angle detector of claim 1, wherein said first detecting  
5 unit includes a first magnet and a first magnetic sensor which detects a magnetic field from said first magnet.

5. The rotation angle detector of claim 4, wherein said second detecting  
unit includes a second magnet and a second magnetic sensor which detects a  
10 magnetic field from said second magnet.

6. The rotation angle detector of claim 4, wherein said second detecting  
unit includes a second magnet and a Hall element which detects a magnetic  
field of said second magnet.